REMARKS

In the present Amendment, claim 1 has been amended to incorporate the recitation of claim 3. Accordingly, claim 3 has been cancelled. No new matter has been added, and entry of the amendment is respectfully requested.

Upon entry of the Amendment, claims 1-2 and 4-20 will be pending.

In Paragraph No. 4 of the final Office Action mailed March 23, 2005, claims 1-5 and 7-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schuhmann et al (US 5,851,640) in view of Ueda et al (EP 0 613 919 A1) and Beck et al (US 5,214,024).

Applicants submit that this rejection should be withdrawn because Schuhmann et al, Ueda et al and Beck et al do not disclose or render obvious the multilayer thermoplastic resin film of the present invention, either alone or in combination.

As recited in independent claim 1, the present invention relates to a multilayer thermoplastic resin film. The film includes an intermediate layer and a printing layer positioned on one surface or both surfaces of the intermediate layer. The intermediate layer contains a non-transfer antistatic agent, and the printing layer does not contain the non-transfer antistatic agent. Further, the printing layer has a printing surface having a surface resistivity of from 1×10^8 to 1×10^{14} ohms. See independent claim 1, as amended.

Applicants submit that Schuhmann et al does not disclose the surface resistivity of the printing surface, as recited in claim 1 as amended. Further, as Applicants explained in the Response filed September 21, 2005, Schuhmann et al does not disclose the non-transfer antistatic agents of the present invention, and does not indicate or suggest the use of such non-transfer anti-static agents. Schuhmann et al does not disclose or suggest the multilayer thermoplastic

resin film of the present invention in which a non-transfer antistatic agent is contained only in intermediate layers, not in "top" layers.

In more detail, Schuhmann et al does not disclose or fairly render obvious the multilayer thermoplastic resin film of the present invention. As the Examiner has recognized (see, e.g., page 2, four lines from the bottom of the final Office Action), the antistatic agent of Schuhmann et al can be added to one or more of the core layer, intermediate layer(s), and top layer(s), as disclosed at col. 9, lines 15-25 of Schuhmann et al. The cited description of Schuhmann et al is merely a general exemplification of additives, and refers as well to other additives such as stabilizers, anti-blocking agents and so on. In addition, the antistatic agent of Schuhmann et al is described as follows at col. 9, lines 26-37:

> Any known antistatic agent can be used. Preferred antistatic agents include alkali metal alkanesulfonates, polyether-modified, i.e., ethoxylated and/or propoxylated, polydiorganosiloxanes (polydialkysiloxanes, polyalkylphenyl-siloxanes and the like) and/or the essentially straight-chain and saturated aliphatic tertiary amines having an aliphatic radical with 10 to 20 -carbon atoms, which are substituted by ω-hydroxy-(C1-C4)-alkyl groups, preferred amines being N,N-bis-(2-hydroxyethyl)-alkylamines having 10 to 20 carbon atoms, preferably 12 to 18 carbon atoms, in the alkyl radical. The effective amount of antistatic is preferably in the range from 0.05 to 0.3% wt.

This description is merely an exemplification of common or conventional low molecular weight (that is, transfer) antistatic agents. Because of their low molecular weight, the low molecular weight antistatic agents will be transferred to the surface of the film, and then bleed out over time.

As seen above, Schuhmann et al does not disclose the non-transfer antistatic agent of the present invention, and does not indicate, suggest, or foreshadow the use of non-transfer antistatic agents. Further, Schuhmann et al does not disclose, suggest, or in any way point to or

foreshadow the embodiment of the present invention in which a non-transfer antistatic agent is incorporated only in an intermediate layer, and not in a "top" layer.

Turning to Ueda et al, the invention of Ueda et al is a resin composition comprising a polymer having an antistatic property. In addition, the obtained molded article of Ueda et al is an injection molded article that is entirely different from the multilayer thermoplastic resin film of the present invention. The present invention and the invention of Ueda belong to different technical fields.

More specifically, Ueda et al discloses a polyetheresteramide and an antistatic resin composition containing it. See the title of Ueda et al's application. Thus, the invention of Ueda et al is a resin composition comprising a polymer or oligomer having an antistatic property. As stated in Ueda et al's Abstract, the polyether ester amide consists essentially of a polyimide oligomer with carboxylic chain ends having a number average molecular weight of 200 to 5,000 and a bisphenol compound with oxyalkylene units having a number average molecular weight between 300 and 3,000.

The antistatic resin composition of Ueda et al is employed to make injection molded articles, which is entirely different from the sealable, transparent, biaxially oriented multilayer polypropylene film of Schuhmann et al and entirely different from the multilayer thermoplastic resin film of the present invention. At page 10, line 14, Ueda et al refer to using their antistatic resin composition to make "molded articles" and in all of their examples and comparative examples, they evaluated their antistatic resin composition using "test pieces made by injection molding". See Ueda et al at page 9, lines 46-49. See also the examples and comparative examples of Ueda et al, beginning at page 12 of Ueda et al and continuing to page 38 of Ueda et

al. The Examiner will kindly note in particular the "Performance Tests." There does not appear to be any disclosure or suggestion in Ueda et al to employ their antistatic resin composition in a multilayer thermoplastic resin film. Accordingly, a person of ordinary skill in the art would not have been motivated to apply the teachings or disclosures of Ueda et al to the multilayer propylene film of Schuhmann et al. Schuhmann et al and Ueda et al simply do not disclose or fairly render obvious the specific multilayer film of the present invention.

While the Examiner in the Advisory Action takes the position that "The teachings of Ueda are in no way limited to molded compositions," Applicants respectfully disagree. Ueda et al's teachings are implicitly limited to molded compositions, since injection molded articles are the only articles that Ueda expressly discloses.

Turning to Beck et al, there are significant differences between the receiver sheet for dye-diffusion thermal transfer printing of Beck et al and the multilayer thermoplastic resin film of the present invention in terms of their respective structures and compositions.

The invention of Beck et al is a thermal transfer sheet in which a conducting undercoat and a dye receiver coat are applied in this order onto a sheet-like substrate, and the sheet-like substrate of Beck et al corresponds to the multilayer thermoplastic resin film of the present invention. Therefore, the invention of Beck et al is entirely different from the multilayer thermoplastic resin film of the present invention. Further, Beck et al does not disclose or suggest the surface resistivity of the printing surface as recited in the above amendment, nor does Beck et al suggest the present invention as a whole.

The structure and composition of the receiver sheet of Beck et al is explained below.

In the receiver sheet of Fig. 1, **1** represents a biaxially orientated polyethyleneterephthalate film (substrate); **2** represents a conducting undercoat; **3** represents a dye receiver coat; and **4** represents an antistatic backcoat. In the receiver sheet of Fig. 2, **11** represents a synthetic paper (substrate); **12** represents a subbing layer; **13** represents a conducting undercoat; **14** represents a dye receiver coat; **15** represents a subbing layer; and **16** represents a back-coat.

Fig.1.

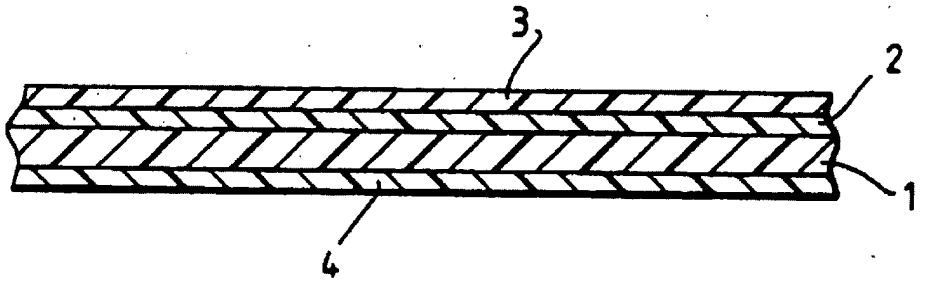
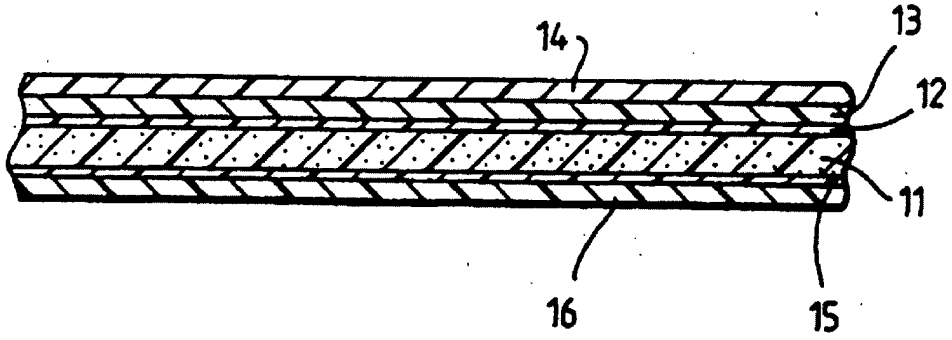


Fig.2.



In these receiver sheets of Beck et al, the dye receiver coats **3** and **14** are layers for effectively fixing a thermal transferred dye. And as Beck et al says, "examples of suitable dye-receptive materials include saturated polyesters soluble in common solvents to enable them readily to be applied to a sheet-like substrate as coating compositions and then dried to form the receiver coat." See Beck et al at col. 1, lines 57 to 61. Beck et al further states that "The receiver coat used in Examples 1-22 was prepared from the following solutions" at col. 6, lines 19 to 20, illustrating that the receiver coat of Beck et al is a coat to be applied to the sheet-like substrate. The Examiner will kindly note that the receiver coat of Beck et al is formed by the application of a coating composition; that is, it is not a film as the present invention discloses.

The conducting undercoats **2** and **13** of Beck et al are layers provided between the sheet-like substrate and the dye receiver coat. As to the conducting undercoat, Beck et al says, "firstly after application, drying and curing (at 110°C)...." See col. 6, lines 12 to 14. This illustrates that the conducting undercoat of Beck et al is a coat to be applied to the sheet-like substrate. Again, the Examiner will kindly note that the conducting undercoat of Beck et al is also formed by the application of a coating composition; that is, it is not a film as the present invention discloses.

Thus, the invention of Beck et al is a thermal transfer sheet in which a conducting undercoat and dye receiver coat are applied in this order onto a sheet-like substrate, and the sheet-like substrate of Beck et al corresponds to the multilayer thermoplastic resin film of the present invention. Therefore, the invention of Beck et al is entirely different from the multilayer thermoplastic resin film of the present invention. Beck et al says, "[O]n the receiving side of the substrate we find that incorporation of antistatic agents into the receiver coat can ... generate undesired side effects where release agents are present." See col. 2, lines 20 to 24, which the

Examiner relies on for the purported motivation for excluding antistatic agent from the surface of the film. However, this description does not indicate that a layer containing an antistatic agent is not provided in the surface layer of the multilayer thermoplastic resin film of the present invention that corresponds to the sheet-like substrate of the Beck et al.

With respect to Beck et al, the Examiner concedes that there are structural differences between the films of Beck et al and the films of Schuhmann et al. See the first full paragraph on page 3 of the Advisory Action. However, the Examiner maintains the position that "said teachings are analogous because the teachings are reasonably pertinent to the particular problem with which the inventor was concerned: the deterioration of surface properties of a film as a result of using antistatic agents in a surface layer." Thus, the Examiner maintains that the combination of Schuhmann et al, Ueda et al and Beck et al renders obvious the claimed invention.

Insofar as the rejection is based on the proposed combination of Beck et al and Schuhmann et al, Applicants respectfully disagree with the Examiner's reasoning. In this regard, it does not appear to Applicants that Schuhmann et al was concerned with the problem of the deterioration of surface properties of a film as a result of using antistatic agents in a surface layer. Thus, since Schuhmann et al was not concerned with this alleged problem, persons of ordinary skill in the art would not have been motivated to turn to Beck et al for its alleged teaching of excluding an antistatic agent from a surface layer.

For these reasons, Schuhmann et al, Ueda et al and Beck et al do not disclose or render obvious the multilayer thermoplastic resin film of present claims 1-5 and 7-20. The Examiner is

respectfully requested to reconsider and withdraw the §103 rejection of these claims based on Schuhmann et al in view of Ueda et al and Beck et al.

Claim 6 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schuhmann et al in view of Ueda et al and Beck et al, as applied to claims 1-5 and 7-20, and further in view of Almog et al (U.S. 6,767,588).

Applicant submit that this rejection should be withdrawn for the same reasons that the rejection of claims 1-5 and 7-20 over Schuhmann et al in view of Ueda et al and Beck et al should be reconsidered and withdrawn.

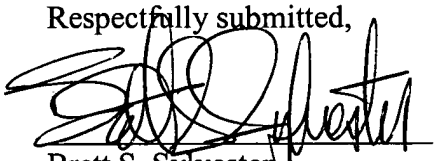
Almog et al does not make up for the deficiencies of Schuhmann et al, Ueda et al and Beck et al discussed above.

The invention of Almog et al is a method for preparing a plastic surface for printing with a toner, and therefore Almog et al does not disclose, suggest or foreshadow the invention of the present application at all.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Brett S. Sylvester
Registration No. 32,765

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
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